

**REMARKS**

Reconsideration and allowance of this application are respectfully requested. Claims 1-16 are pending in the application. The rejections are respectfully submitted to be obviated in view of the remarks presented herein.

**Objections to the Specification**

*The specification is objected to because the document EP 1 204 246 A1 cannot be found by the Examiner. Accordingly, Applicants have attached herewith a copy of EP 1 204 246 A1,* which was published on May 8, 2002. Accordingly, withdrawal of the objections to the specification is respectfully requested.

**Rejection Under 35 U.S.C. § 103(a) - Applicant's admitted prior art in view of DAN:**

**Distributed Code Caching for Active Networks**

*Claims 1-16 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Applicant's admitted prior art (U.S. Pub. No. US 2006/0155834; hereinafter "AAPA") in view of DAN: Distributed Code Caching for Active Networks (Decasper, D. and Plattner, B., Proceedings of IEEE INFOCOM'98, April 1998, pp. 609-616; "DAN"). The rejection is respectfully traversed.*

**Regarding claim 1**, claim 1 recites an active telecommunications network comprising:

an active node comprising active code reception means and an active code execution environment; and

a signaling control unit comprising:

means for receiving a request to set up a virtual circuit between a client terminal and a server terminal;

a virtual circuit set-up means; and

means controlled by the virtual circuit set-up means for sending active code to the active node.

As discussed in the Amendment filed on August 20, 2008, the AAPA and DAN, individually or in combination, fail to teach or suggest, *inter alia*, “a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal; virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node,” as recited in claim 1.

Turning first to the AAPA, the AAPA discusses background information which sets up the foundations upon which improvements have been made, the improvements representing the present invention. In particular, the disclosure in the AAPA only makes general reference to prior art signaling control units which include a SIP proxy that enables such prior art signaling control units to communicate with a network using IP (IP network).

The AAPA thus fails to teach or suggest, *inter alia*, “a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal,” as recited in claim 1. The AAPA does not include any teaching or suggestion of a **request** to set up a virtual circuit. In fact, the AAPA is completely silent on the inclusion of or setting up any virtual circuit in general.

The Examiner alleges on page 5 of the Office Action that the AAPA discloses on page 1, lines 5-24 that the prior art signaling control unit may be a SIP proxy, which is known to set up virtual circuits for a communication session between a client and a server. However, even though the prior art signaling control units may include a SIP proxy, such a SIP proxy is merely disclosed to enable the prior art signaling control units to communication with a network. The SIP proxy is disclosed to regulate exchanges between data transfer application in real time over IP networks (page 1, lines 20-24). Therefore, by extending the general teaching of a SIP proxy as disclosed by the AAPA to further have the capability of setting up a virtual circuit between a

client terminal and a server terminal, the Examiner necessarily is relying on improper hindsight, as the AAPA is completely silent on any setting up of a virtual circuit between terminals.

The Examiner further argues in the Response to Arguments section on pages 2-3 of the Office Action that the use of the SIP proxy in the IP network would allegedly provide links between network components and such links would allegedly disclose the claimed “virtual circuit.” However, the SIP proxy as disclosed by the AAPA is only disclosed explicitly to allow signaling control units to communicate with a network using the IP, and to regulate exchanges between data transfer applications in real time over IP networks. With such a limited functionality as disclosed, the SIP proxy within the signaling control units of the AAPA is not taught or suggested to itself be a virtual circuit, or to even be capable of setting up a virtual circuit between a client terminal and a server terminal. Even assuming *arguendo* that the mere use of the SIP proxy within the signaling control unit of the AAPA could possibly provide a virtual circuit between IP network components, the AAPA still fails to teach or suggest any request to set up a virtual circuit between any terminals. Again, the AAPA is silent on having any request to set up a virtual circuit.

Also, the AAPA’s disclosure of a signaling control unit which may include a SIP proxy would not teach or suggest that the SIP proxy may ever set up a virtual circuit. Furthermore, reference has been made by the Examiner on page 5 of the Office Action to RFC 2543, however, RFC 2543 also makes no mention of the SIP proxy setting up a virtual circuit or even receiving a request to set up such a virtual circuit. Again, the Examiner has relied upon improper hindsight obtained from the Applicants’ own disclosure of the present invention in concluding that the AAPA’s mere inclusion of a SIP proxy within a signaling control unit suggests the setting up of a virtual circuit.

The AAPA also fails to teach or suggest a signal control unit also comprising “virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node,” as recited in claim 1. As discussed above, the AAPA is silent on (1) the inclusion of a virtual circuit and (2) a means for receiving a request to set up a virtual circuit between a client terminal and a server terminal.

The Examiner has alleged on pages 5-6 of the Office Action that “the Applicant did admit that the prior art disclose wherein active nodes receive active code in response to setting up a virtual circuit between a client and a server.” However, the Examiner’s statement is incorrectly characterizing the AAPA, because the AAPA is disclosing only that the active code to be deployed to an active node is determined from the client or user terminal requesting the transfer of data. Nowhere in the AAPA is there any teaching or suggestion that the active code is sent to the active node in response to setting up a virtual circuit between a client and a server. Instead, the sending of the active code to the active node in the AAPA occurs after the code to be deployed is determined from the client or user terminal requesting the transfer of data, and is contained in the data stream received by the active node. Specifically, the active code in the AAPA is associated with the data stream by applications of a user and sent to the active node along with the data stream. Therefore, the AAPA clearly does not teach or suggest that the active node receives the active code *in response to setting up a virtual circuit between a client and a server*, as the Examiner has alleged.

DAN fails to remedy the deficiencies of AAPA. DAN also fails to teach or suggest “a signaling control unit comprising: means for receiving a request to set up a virtual circuit between a client terminal and a server terminal; virtual circuit set-up means; and means controlled by the virtual circuit set-up means for sending active code to the active node,” as

recited in claim 1. DAN fails to teach or suggest either a virtual circuit, a means for receiving a request to set up a virtual circuit, a virtual circuit set-up means, or means controlled by a virtual circuit set-up means for sending active code to the active node. In fact, DAN is completely silent on both setting up a virtual circuit as well and a request to set up a virtual circuit.

The Examiner on page 6 of the Office Action alleges that DAN discloses on page 611 a system analogous to the AAPA. However, DAN does not teach or suggest any virtual circuit. Rather, page 611 of DAN only describes how DAN's Active Network Node (ANN) functions, particularly in regards to DAN's code server being a "cache" for DAN's active module code. Although DAN's disclosure does generally relate to receiving an active module from a code server, DAN however does not ever set up any virtual circuit between a client terminal and a server terminal. In fact, the ANN of DAN is disclosed to receive a connection setup request from a client and then forward such request to a video server (see step (1) of FIG. 2). DAN's code server then sends the active module to the ANN, which forwards the packet to the client. Therefore, the Examiner's allegation that DAN discloses a unit that sends active code to an active node upon a request to set up a virtual circuit between a server and a client is clearly incorrect, because the request made by the client in DAN is only for a connection setup between the client and the video server as shown in FIG. 2, and is not a request to set up a virtual circuit as claimed.

At least by virtue of the aforementioned differences, claim 1 is distinguished over the AAPA in view of DAN. Amended claim 6 is a related independent method claim, and is also distinguished over the AAPA in view of DAN for analogous reasons as discussed above. Claims 2-5 and 7-16 are dependent claims which also distinguish over the AAPA in view of DAN for at least their dependencies as well as for their additionally recited elements.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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